## Message

From: Raju Bisht [rbisht@navajo-nsn.gov]

**Sent**: 9/13/2017 7:22:28 PM

To: Bohning, Scott [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=c00bdc10ca564ae982aa105d4c1b32c5-SBOHNING]

CC: Michael Z. King [mzking@navajo-nsn.gov]; Lee, Anita [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=0054c16e603d4cc6a2cbb5e39a828234-ALEE07]

Subject: RE: NGS\_SO2\_DRR\_Modeling

Attachments: NGS\_SO2 Data.xlsx

## Hi Scott,

Hope you are doing well. I had a few questions regarding the designations for Navajo Nation for the 2010 NAAQS for SO2. Was a little surprised with the "Unclassifiable" designation for the area within a 50-km radius of NGS. I was of the impression that this could be the case for some portion in the southeastern portion of the Nation because of the emissions from the Escalante plant but that the rest of the areas were fine. We are internally discussing on how we move forward with this and SRP has also been reaching out to us regarding this. I would like to clarify certain things with you before I discuss this further with our management. I understand that this designation will have no effects on CAA requirements for other sources located in this area and we might leave it at that because of our restricted resources. But, just to understand how EPA made the decision, we understand that using the ADJ\_U\* without formal approval was problematic. But EPA determined that using the PTE emissions instead of the actual hourly was a deviation. I thought allowable emissions could be used. The TAD makes it look like we used the actual annual averages from 2001 - 2008, which is not the case and the allowable emissions was used. I have attached a spreadsheet providing the PTE vs actual emissions. Anyway, moving forward I had the following questions:

- 1) Will this designation change if NGS closes down in 2019?
- 2) Should we decide to resubmit our reports, do we start from scratch, i.e. new modeling protocol, etc or do we just rerun the model with the latest version of AERMOD with the actual emissions and meteorological data for 2013 2015 and just submit the results and modeling files?
- 3) Do we need to submit the new report by Oct 23, 2017 or by the end of the year?

Thank you. Raju

From: Bohning, Scott [mailto:Bohning.Scott@epa.gov]

**Sent:** Tuesday, October 25, 2016 12:30 PM **To:** Raju Bisht <rbisht@navajo-nsn.gov>

**Cc:** Heckel Kyle C < Kyle. Heckel@srpnet.com>; Viswanathan, Krishna < Viswanathan. Krishna@epa.gov>; Lee, Anita < Lee. Anita@epa.gov>; Michael Z. King < mzking@navajo-nsn.gov>; Prashanth Subburam < psubburam@navajo-nsn.gov>; Frashanth Subburam < psubburam <

Eugenia Quintana <eugeniaquintana@navajo-nsn.gov>

Subject: RE: NGS\_SO2\_DRR\_Modeling

Raju -

Thanks for your email, sounds like we are on the same page for the most part.

FYI, I mainly sent AECOM FCPP information as an example of information that it would be good to have so we can better document our action for the SO2 DRR (& also enable us to re-run it if needed)... did not intend it to be directions to anyone on how modeling needs to be done for NGS. I think relying as much as possible on the existing EIS work for NGS is still the way to go, and we are not asking SRP to do any new modeling.

Per previous discussions here in R9, we are OK with using the existing modeled meteorology years per the EIS, rather than redoing to the most recent years. There is flexibility under the SO2 modeling Technical Assistance Document ("TAD") on that, and also additional flexibility given that this is a tribal area. We don't see much benefit to redoing all the meteorological data processing. As for emission rate, one can use actual or allowable emissions, and since here the EIS modeling used the allowable 0.1 lb/MMbtu SO2 emission limit, that is OK, too.

The only problem I see at this point is that the EIS modeling used the AERMOD "ADJ\_U\*" beta option. That may get approved very soon in our final revisions to "Appendix W" (Guideline on Air Quality Models, 40 CFR 51 App. W), but is not guaranteed. So, the fall-back options are 1) get case-by-case approval via official Model Clearinghouse memo & documentation to EPA OAQPS, or 2) remodel with default, non-beta model options. I will pursue #1, but would like to be able to pursue #2 if needed -- that might actually be easier than #1 if I have the files used in the EIS modeling.

Kyle left me a voice message yesterday, and I spoke with him this morning (Tues. 10/25). I passed along some of the above to him, and he said he would speak with SRP's consultant about putting some modeling files and documentation together for all of us.

Sorry if I have not been clear on our thinking as things unfold... but it looks like we're actually in pretty good shape for both FCPP and NGS.

- Scott B.

P.S. FYI, I will be on leave mostly out of town starting Thurs. 10/27 - Fri. 11/4 (returning Mon 11/7)

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=+=+=+=+=+=+=+=+= "Scott Bohning" <<u>bohning.scott@epa.gov</u>> U.S. EPA Region 9, AIR-7 415/947-4127 fax-3579

From: Raju Bisht [mailto:rbisht@navajo-nsn.gov]

Sent: Monday, October 24, 2016 3:17 PM
To: Bohning, Scott <a href="mailto:Scott@epa.gov">Bohning.Scott@epa.gov</a>>

Cc: Heckel Kyle C < <a href="mailto:Kyle.Heckel@srpnet.com">Kyle.Heckel@srpnet.com</a>; Viswanathan, Krishna <a href="mailto:Viswanathan.Krishna@epa.gov">Krishna@epa.gov</a>; Lee, Anita@epa.gov</a>; Prashanth Subburam <a href="mailto:psubburam@navajo-nsn.gov">psubburam@navajo-nsn.gov</a>; eugeniaquintana@navajo-nsn.gov

Subject: RE: NGS SO2 DRR Modeling

Hi Scott,

I have cc'd Kyle on this email so that SRP is also clear as to what you are requiring them to do at this time. I was informed that for the NGS EIS modeling, the MET data used was for the years 2008 to 2012 I believe. The emissions used was the max permitted lb/MMBTU limits. So, if you believe that these data would be comparable to what would be required for the SO2 DRR requirements, they could probably work on providing you with what you are requesting for but would differ from what AECOM did for FCCP since the actual hourly emissions for the recent years was not used. I believe they are requesting clarification on if anything needs to be done differently for SO2 DRR than what has been done for the EIS study.

Please feel free to request any more information from Kyle. Kyle, please feel free to correct me if I have not interpreted what we talked about correctly.

Thank you. Raju

From: Bohning, Scott [mailto:Bohning.Scott@epa.gov]

Sent: Thursday, October 20, 2016 9:51 AM To: Raju Bisht <a href="mailto:rbisht@navajo-nsn.gov">rbisht@navajo-nsn.gov</a>

Cc: Viswanathan, Krishna < Viswanathan. Krishna@epa.gov>; Lee, Anita < Lee. Anita@epa.gov>; Michael Z. King

<mzking@navajo-nsn.gov>; Prashanth Subburam <psubburam@navajo-nsn.gov>; Eugenia Quintana

<eugeniaquintana@navajo-nsn.gov>
Subject: RE: NGS SO2 DRR Modeling

Raju -

Thanks for looking into this!

- Scott B.

From: Raju Bisht [mailto:rbisht@navajo-nsn.gov]
Sent: Thursday, October 20, 2016 7:50 AM
To: Bohning, Scott <a href="mailto:bohning.Scott@epa.gov">bohning.Scott@epa.gov</a>

Cc: Viswanathan, Krishna < Viswanathan. Krishna@epa.gov >; Lee, Anita < Lee. Anita@epa.gov >; Michael Z. King

<mzking@navajo-nsn.gov>; Prashanth Subburam <psubburam@navajo-nsn.gov>; eugeniaquintana@navajo-nsn.gov

Subject: RE: NGS\_SO2\_DRR\_Modeling

Scott,

The person coordinating these modeling studies at SRP will only be back at work on Monday. We won't know till next week what they have to say.

Thanks.

From: Bohning, Scott [mailto:Bohning.Scott@epa.gov]

**Sent:** Wednesday, October 19, 2016 5:32 PM **To:** Raju Bisht <<u>rbisht@navajo-nsn.gov</u>>

Cc: Viswanathan, Krishna < Viswanathan. Krishna@epa.gov>; Lee, Anita < Lee. Anita@epa.gov>; Michael Z. King

<mzking@navajo-nsn.gov>; Prashanth Subburam <psubburam@navajo-nsn.gov>; Eugenia Quintana

<eugeniaquintana@navajo-nsn.gov>
Subject: RE: NGS SO2 DRR Modeling

Raju -

It would be nice to get something comparable to the attached for NGS.

Attached is a "readme" and listing of zipped modeling file archive that AECOM provided for Four Corners Power Plant. It includes the hourly emissions data, the original meteorological data used before it was processed, and also the inputs & outputs to terrain and meteorological data and building dimension (BPIP) processing steps.

- Scott B.

Attachments

FCPP Modeling Archive Readme.doc FCPP\_archive\_listing.txt

From: Raju Bisht [mailto:rbisht@navajo-nsn.gov]
Sent: Wednesday, October 19, 2016 12:52 PM
To: Bohning, Scott <Bohning.Scott@epa.gov>

Cc: Viswanathan, Krishna < Viswanathan.Krishna@epa.gov>; Lee, Anita < Lee.Anita@epa.gov>; Michael Z. King < mzking@navajo-nsn.gov>; Prashanth Subburam < psubburam@navajo-nsn.gov>; eugeniaquintana@navajo-nsn.gov
Subject: RE: NGS\_SO2\_DRR\_Modeling

Hi Scott,

Please see if this works for you and let me know if there are any more specific files that you require. I will wait for your reply before I reach out to SRP.

Thanks. Raju

From: Bohning, Scott [mailto:Bohning.Scott@epa.gov]

Sent: Wednesday, October 19, 2016 1:33 PM

**To:** Raju Bisht <<u>rbisht@navajo-nsn.gov</u>>

Cc: Viswanathan, Krishna < Viswanathan. Krishna@epa.gov >; Lee, Anita < Lee. Anita@epa.gov >; Michael Z. King

<mzking@navajo-nsn.gov>; Prashanth Subburam <psubburam@navajo-nsn.gov>; Eugenia Quintana

<eugeniaquintana@navajo-nsn.gov>
Subject: RE: NGS\_SO2\_DRR\_Modeling

## Raju -

I guess Anita called you about the additional modeling files.... Thanks for these, and actually I think I just had the ".recs" and ".in" files.

By the way, the attachment "2008-2012\_aermet.zip" was removed... - our e-mail system strips all incoming and outgoing ".zip" and ".jpg" files on the dubious grounds that they may contain a virus. I'd appreciate if you'd resend that, but with renamed to have a different extension, like ".zi".

I'd like to be able to at least rerun the model if needed, for which I would need KPGA.2008.SFC and KPGA.2008.PFL in addition to the ones I already have. But also would like to check how the meteorological data processing was done, and also check various things against the description in the EIS modeling report.

But I think it would be best for our records to just request all the input files.

- Scott B.

From: Raju Bisht [mailto:rbisht@navajo-nsn.gov]
Sent: Wednesday, October 19, 2016 12:20 PM
To: Bohning, Scott <Bohning.Scott@epa.gov>

Cc: Viswanathan, Krishna < Viswanathan, Krishna@epa.gov>; Lee, Anita < Lee. Anita@epa.gov>; Michael Z. King < mzking@navajo-nsn.gov>; Prashanth Subburam < psubburam@navajo-nsn.gov>; eugeniaquintana@navajo-nsn.gov

Subject: NGS\_SO2\_DRR\_Modeling

Hi Scott,

Did you have any particular additional input files in mind that you want from SRP or should we just generally reach out and request them for all the input files used in their modeling? I have also attached all the files that were forwarded to you so far.

Thanks. Raju